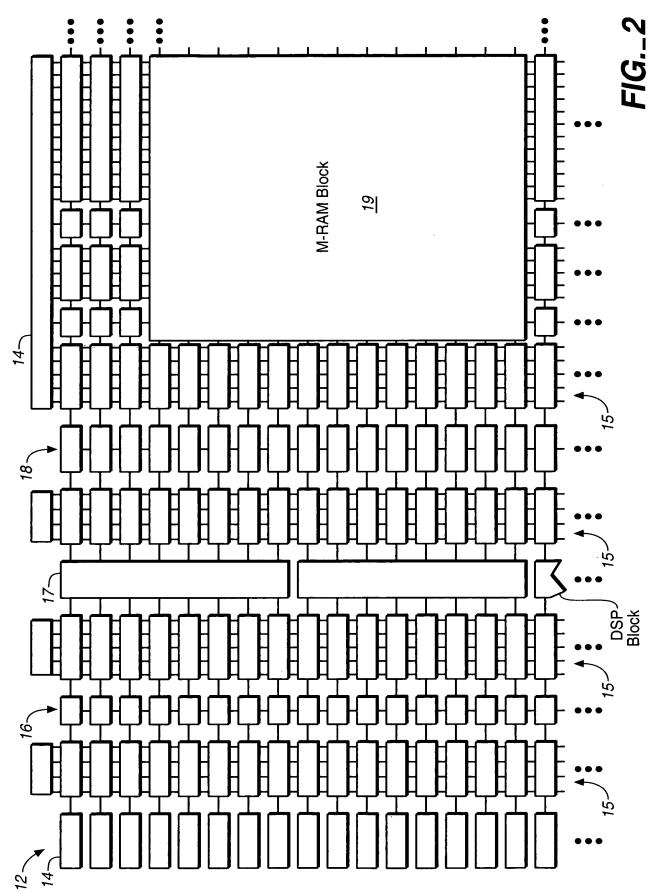App No.: 10/668,449   Docket No.: 306812004220
Inventor: Asher HAZANCHUK et al.
Title: VARIABLE FIXED MULTIPLIERS USING MEMORY
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FIG._1
(PRIOR ART)

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FIG._2

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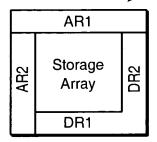   BLOCKS
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	AR1	
AR2	Storage Array	DR2
	DR1	

FIG._3

RAM Block Contents	
Address	Storage Contents
0000	0
0001	C0
0010	C1
0011	C0+C1
0100	C2
0101	C2+C0
0110	C2+C1
0111	C2+C1+C0
1000	C3
1001	C3+C0
1010	C3+C1
1011	C3+C1+C0
1100	C3+C2
1101	C3+C2+C0
1110	C3+C2+C1
1111	C3+C2+C1+C0

FIG._5

TABLE I

RAM Block Contents	
Address	Storage Contents
0000	0
0001	D0
0010	D1
0011	D0+D1
0100	D2
0101	D2+D0
0110	D2+D1
0111	D2+D1+D0
1000	D3
1001	D3+D0
1010	D3+D1
1011	D3+D1+D0
1100	D3+D2
1101	D3+D2+D0
1110	D3+D2+D1
1111	D3+D2+D1+D0

TABLE II

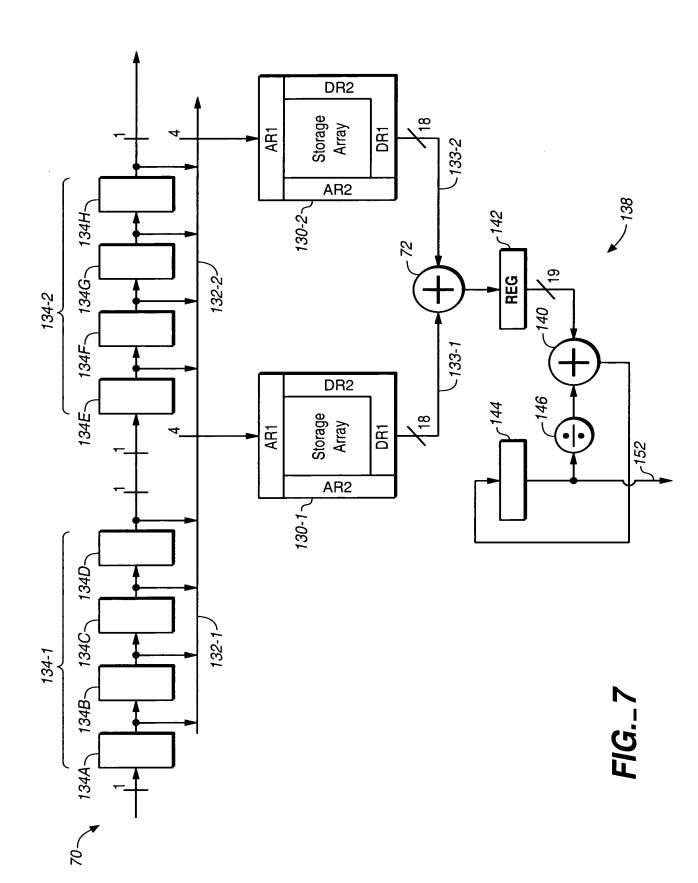| RAM Block Contents	
Address	Storage Contents
0000	0
0001	F0
0010	F1
0011	F0+F1
0100	F2
0101	F2+F0
0110	F2+F1
0111	F2+F1+F0
1000	F3
1001	F3+F0
1010	F3+F1
1011	F3+F1+F0
1100	F3+F2
1101	F3+F2+F0
1110	F3+F2+F1
1111	F3+F2+F1+F0

FIG._6

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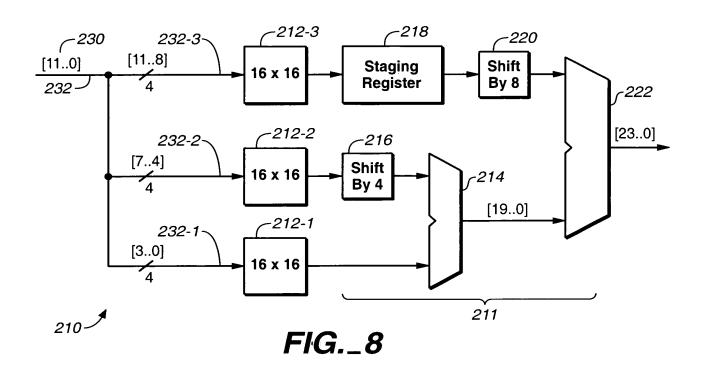| Addr	Mult_result
0000	0
0001	C0
0010	C1
0011	C0+C1
1111	C0+C1+C2+C3

FIG._4

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FIG._7

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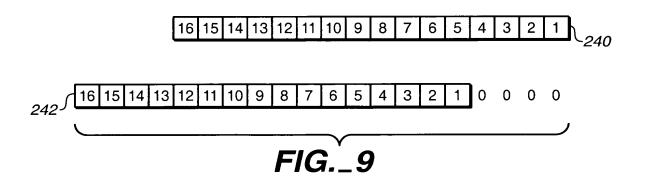Inventor: Asher HAZANCHUK et al.
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FIG._8

Address	Multiplication Result
0000	0
0001	C
0010	2C
0011	3C
0100	4C
•••	•••
1111	15C

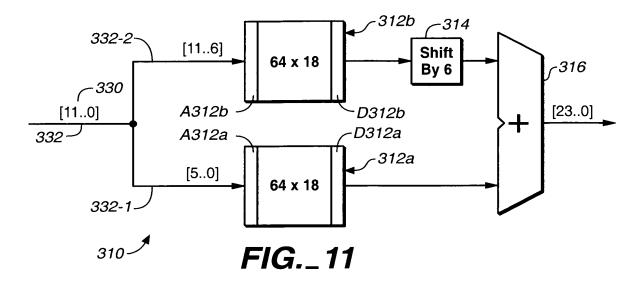## FIG._10

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FIG._11
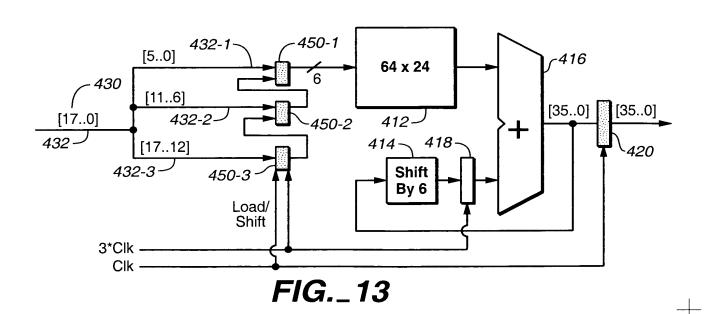

Address	Multiplication Result
000000	0
000001	Ca
000010	2Ca
000011	3Ca
000100	4Ca
•••	•••
111110	62Ca
111111	63Ca

Address	Multiplication Result
000000	0
000001	C
000010	2Cb
000011	3Cb
000100	4Cb
•••	•••
111110	62Cb
111111	63Cb

FIG._12

FIG._13

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FIG._14